

In the Claims:

Kindly cancel claims 1, 2, 4 and 18 without prejudice.

Kindly rewrite claims 3, 5-17 as follows:

~~3. (Amended) A nucleic acid molecule having a shortened sequence compared with a nucleic acid molecule of SEQ ID No. 1 that being either~~

~~(i) SEQ ID NO 3 or~~

~~(ii) SEQ ID NO 4 or~~

~~(iii) SEQ ID NO 5 or~~

~~(iv) the sequence complementary to each of (i), (ii) and (iii).~~

~~5. (Amended) A nucleic acid molecule which, in respect of its sequence in at least 10 successive nucleotides of its nucleotide chain,~~

~~(i) is identical to a nucleic acid molecule according to claim 3 or~~

~~(ii) corresponds to a nucleic acid molecule according to claim 3 in 9 out of 10 successive nucleotides or~~

~~(iii) corresponds to a nucleic acid molecule according to claim 3 in 8 out of 10 successive nucleotides or~~

(iv) it is at least 90 % homologous to a nucleic acid molecule according to claim 3, the nucleic acid molecule allowing the detection of bacteria of the *Pseudomonas* genus.

6. (Amended) A nucleic acid molecule according to claim 5, wherein the nucleic acid molecule is from 10 to 250, and preferably from 15 to 30, nucleotides long.

7. (Twice Amended) A nucleic acid molecule according to claim 3, wherein the nucleic acid molecule is single-stranded or double-stranded.

8. (Twice Amended) A nucleic acid molecule according to claim 3, wherein the nucleic acid molecule is present

(i) as DNA or

(ii) as RNA corresponding to (i) or

(iii) as PNA,

the nucleic acid molecule where appropriate having been modified in a manner known *per se* for analytical detection processes, especially those based on hybridisation and/or amplification.

9. (Amended) A nucleic acid molecule according to claim 8, wherein the nucleic acid molecule has been modified in such a manner that up to 20 % of the nucleotides of at least 10 successive nucleotides of its nucleotide chain, especially 1 or 2 nucleotides, have been replaced by analogous building blocks known *per se* as probes or primers.

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10. (Twice Amended) A nucleic acid molecule according to claim 8, wherein the nucleic acid molecule has been modified or labelled or additionally modified or labelled in such a manner that it comprises, in a manner known *per se* for analytical detection processes, one or more radioactive groups, coloured groups, fluorescent groups, groups for immobilisation on a solid phase or groups for an indirect or direct reaction, or otherwise modifying or modified groups of nucleic-acid-like structure.

11. (Twice Amended) A kit comprised of one or more nucleic acid molecules selected from the group consisting of a nucleic acid molecule according to claim 3, nucleic acid molecule to SEQ ID No. 1 and nucleic acid molecule

of SEQ ID No. 2 in the presence of optional auxiliary substances for analytical detection processes.

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12. (Twice Amended) A method of detecting the presence or absence of bacteria comprising the step of using a kit according to claim 11 for detection of the presence or absence of bacteria belonging to a group of bacteria of the *Pseudomonas* genus.

13. (Amended) The method according to claim 12, wherein the group of bacteria of the *Pseudomonas* genus includes various strains of *Pseudomonas aeruginosa* or is made up from those strains.

14. (Amended) The method according to claim 13, wherein the group of bacteria of the *Pseudomonas* genus is composed exclusively of *Pseudomonas aeruginosa* strains.

15. (Twice Amended) The method according to claim 12, wherein nucleic acid hybridisation or nucleic acid amplification or nucleic acid hybridization plus amplification are carried out.

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16. (Amended) The method according to claim 15, wherein, as nucleic acid amplification, a polymerase chain reaction is carried out.

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17. (Twice Amended) The method according to claim 12, wherein the detection is carried out by distinguishing the to-be-detected bacteria from not-to-be-detected bacteria on the basis of differences in the genomic DNA or RNA at at least one nucleotide position in the region of a nucleic acid molecule according to claim 3.

Kindly add new claims 19-25.

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19. (New) A nucleic acid molecule according to claim 6, wherein the nucleic acid molecule is from 15 to 30, nucleotides long.

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20. (New) A nucleic acid molecule according to claim 8, wherein the nucleic acid molecule is present

- (i) as DNA or
- (ii) as RNA corresponding to (i) or
- (iii) as PNA,

the nucleic acid molecule where appropriate having been modified in a manner known *per se* for analytical

detection processes based on hybridisation or amplification.

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21. (New) A nucleic acid molecule according to claim 3, wherein the nucleic acid molecule has been modified in such a manner that 1 or 2 of the nucleotides of at least 10 successive nucleotides of its nucleotide chain have been replaced by analogous building blocks known *per se* as probes or primers.

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22. (New). A nucleic acid molecule according to claim 3, wherein the nucleic acid molecule has been modified in such a manner that up to 20 % of the nucleotides of at least 10 successive nucleotides of its nucleotide chain have been replaced by nucleotides that do not occur naturally in bacteria.

23. (New) A nucleic acid molecule according to claim 10, wherein the nucleic acid molecule has been modified or labelled or additionally modified or labelled in such a manner that it comprises, in a manner known *per se* for analytical detection processes, one or more radioactive groups, coloured groups, fluorescent groups, groups for

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immobilisation on a solid phase or groups for an indirect or direct enzymatic reaction.

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24. (New) A nucleic acid molecule according to claim 10, wherein the nucleic acid molecule has been modified or labelled or additionally modified or labelled in such a manner that it comprises, in a manner known *per se* for analytical detection processes, one or more groups for an indirect or direct reaction using antibodies, antigens, enzymes or substances having an affinity for enzymes or enzyme complexes.

25. (New) A kit according to claim 11 for the detection of bacteria of the *Pseudomonas* genus.--

Remarks

Reconsideration of the application as amended is respectfully requested. Initially, the claims have been amended to address the rejection under 35 U.S.C. 101 and 112. Claims 1, 2, 4 and 18 have been cancelled without prejudice. The remaining claims have been substantially amended with claims 19-25 added.